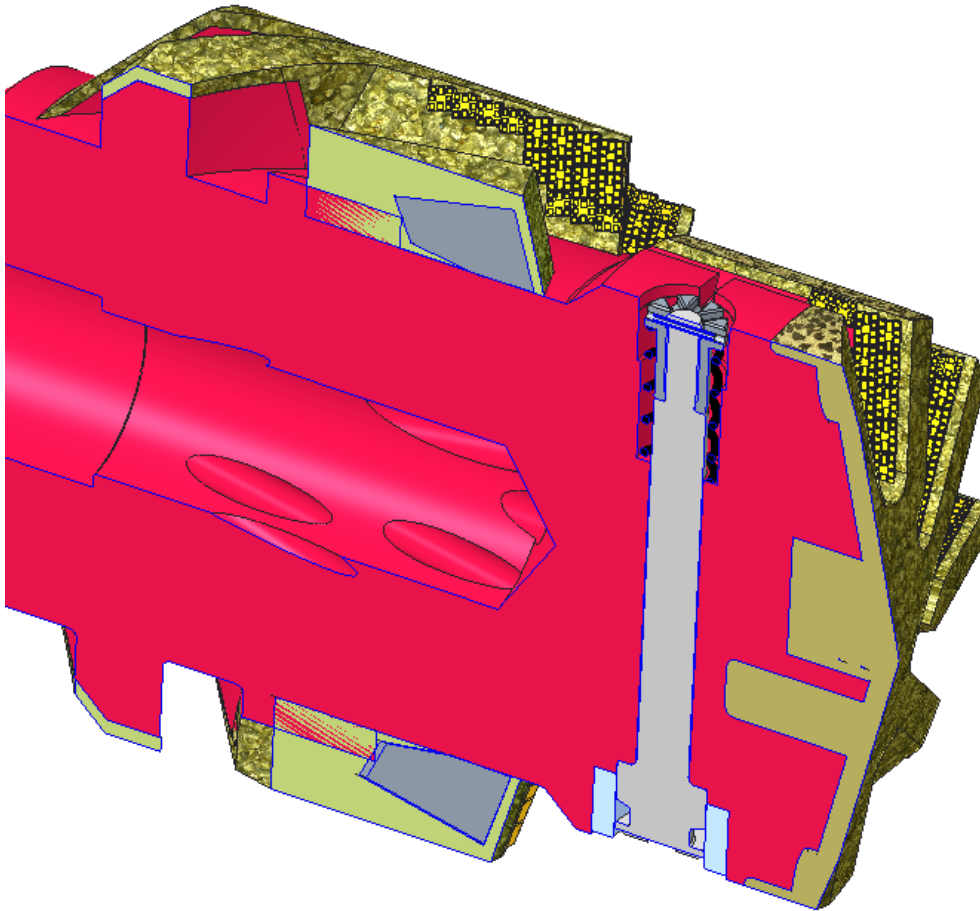


	1 of 8	AlphaV Hydraulic Mill Release (HMR) Assembly/Disassembly					
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GL-INTS-OEPS-L4-920	CONTROLLED	LEVEL 4	A	04/2024	S. Pray	A. Odell	

AlphaV Hydraulic Mill Release (HMR) Assembly/Disassembly QuickCut™ Lead Mill 9-5/8-in & 13-3/8-in



Scope

The following procedures are intended to provide instructions for the proper assembly/disassembly of the QuickCut Lead Mill configured for use with the Hydraulic Mill Release (HMR) system.

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Bill of Materials

Casing Size			9-5/8"	
Casing Weight (#)		Dressed Lead Mill (PN)		Lead Mill Assy (PN)
43.5 – 53.5 SD		02990643		02776823
53.5		02776817		02776822
58.4		02776816		02776821
Casing Size			13-3/8"	
Casing Weight (#)		Dressed Lead Mill (PN)		Lead Mill Assy (PN)
48 – 72 SD		02707138		02707137
72		02965513		02965540
HMR Lead Mill Assembly (9-5/8" & 13-3/8")				
Item No.	PART NUMBER		DESCRIPTION	QTY
	9-5/8" Part Number	13-3/8" Part Number		
1	See Table	See Table	Mill, Lead, DRSD, QC, HMR	1
2	02770172	02691399	Spring, Mill Retention Pin	1
3	02772918	N.A.	Pin, Upper Retractable	1
4	02772833	N.A.	Pin, Lower Retractable	1
5	N.A.	02943725	Pin, Retractable, HMR	1
6	N.A.	02943727	Cap, retractable pin, HMR	1
7	02979059	02979059	Washer, Locking Tab, HMR	1
8	02980221	02980220	Nut, lock flex	1
9	02781262	N.A.	Seat, Spring, HMR Lead Mill	1

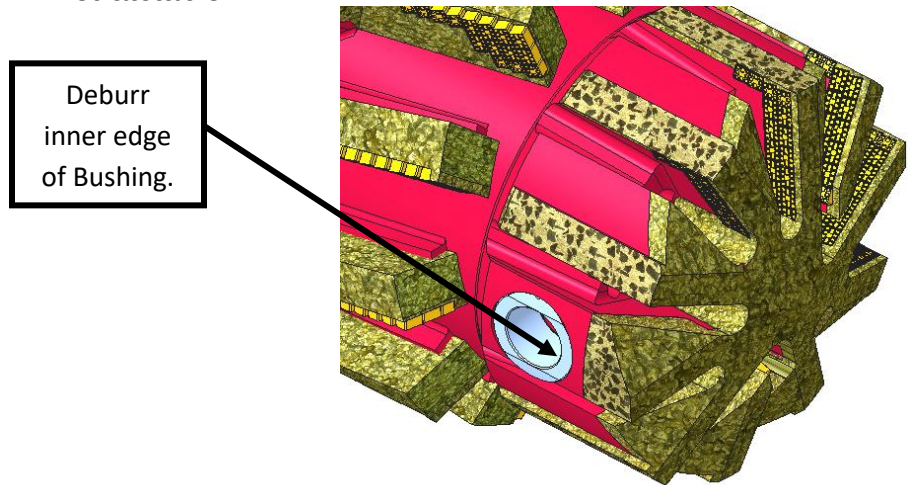
Tools Required

Part Number	Description	Qty
02944441	Socket, Pin, Assembly Tool, HMR	2
N/A	Adjustable Wrench or Socket Wrench w/ Socket	2

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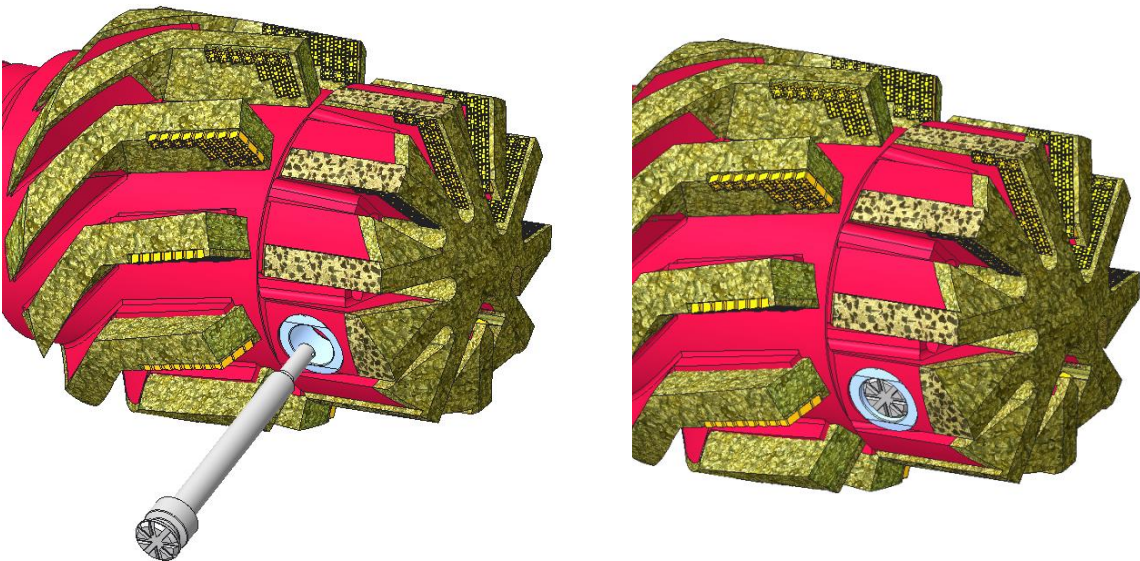
Pre-assembly Instructions

- 1) Inspect all components to ensure that items are free of corrosion/damage prior to assembly.
- 2) If necessary, deburr inner edge of Lead Mill Bushing to allow installation of Retractable Pin.



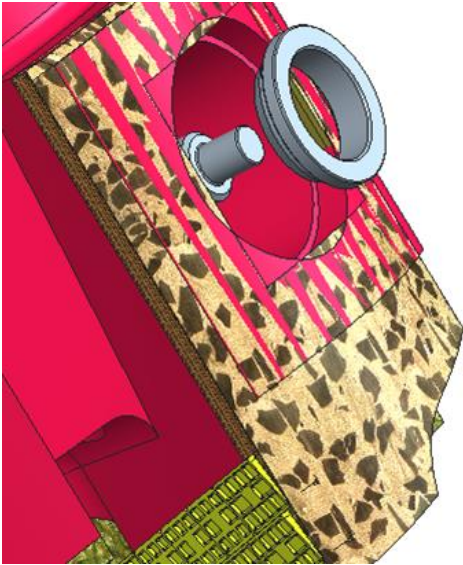
Assembly Instructions

- 1) Place Lead Mill (#1) on a workbench or in a horizontal vise. Insert Pin, Lower Retractable (#4 or #5) into Lead Mill Pin Bore. See Images below.

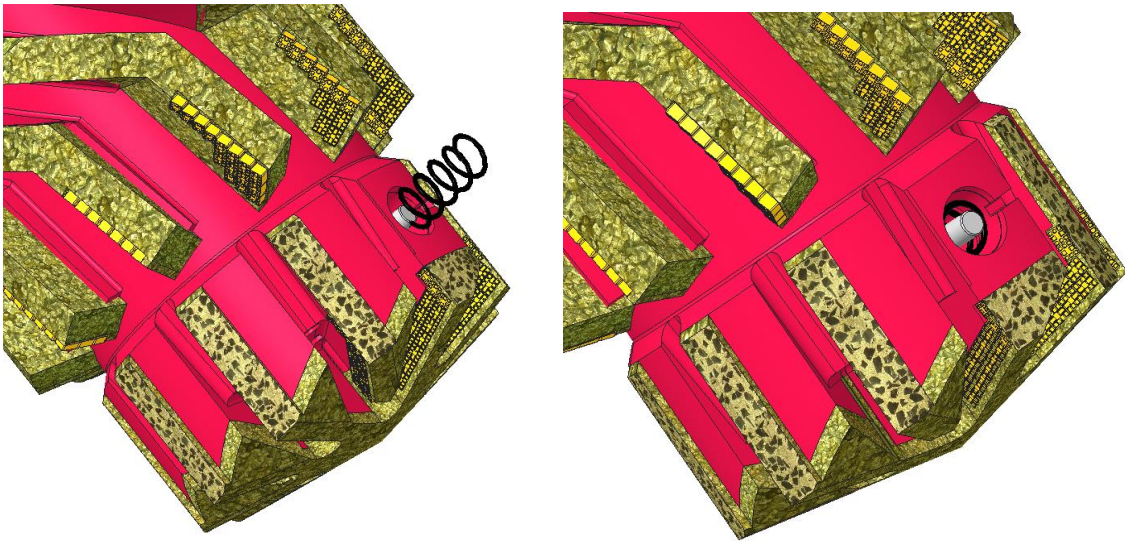


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- 2) Carefully insert Seat, Spring (#9) into threaded Pin Bore of Lead Mill (#1) until it meets inner groove. This is only applicable to the 9-5/8" assembly.

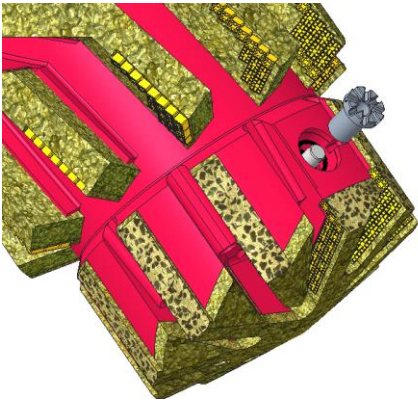


- 3) Insert Spring, Mill Retention Pin (#2) onto the Pin, Lower Retractable (#4 or #5) as seen in the picture below.

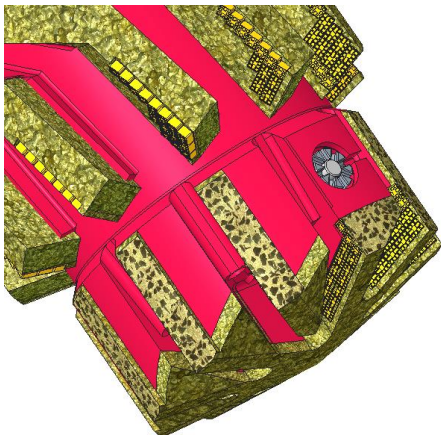
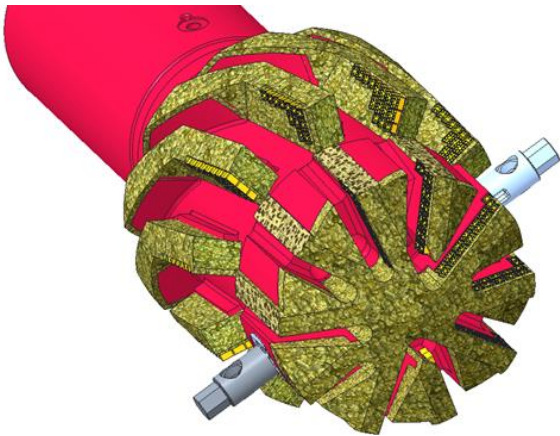


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- 4) Install Pin, Upper Retractable (#3 or #6) into Dressed Lead Mill. Thread Pin, Upper Retractable (#3 or #6) onto threaded shaft of Pin, Lower Retractable (#4 or #5). See image below.



- 5) Using an appropriate sized Wrench, use qty 2 of Tool, Socket, Pin, Assembly Tool HMR (PN 02944441) to simultaneously tighten Pin, Lower Retractable (#4 or #5) and Pin, Upper Retractable (#3 or #6). See Images below.



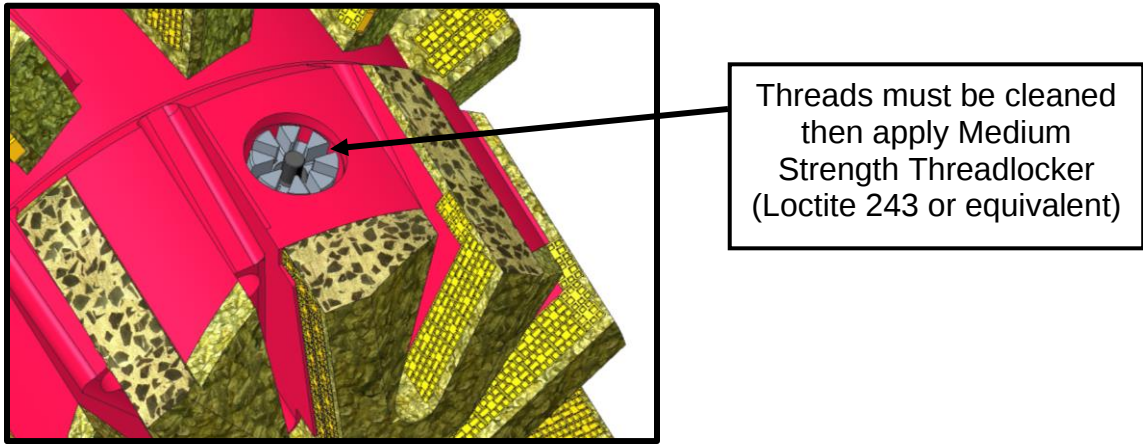
Utilizing Assembly Tools (one to apply torque and the other as back-up) and a calibrated torque wrench, incrementally apply torque to Upper and Lower Retractable Pins until reaching correct torque value.

See table below.

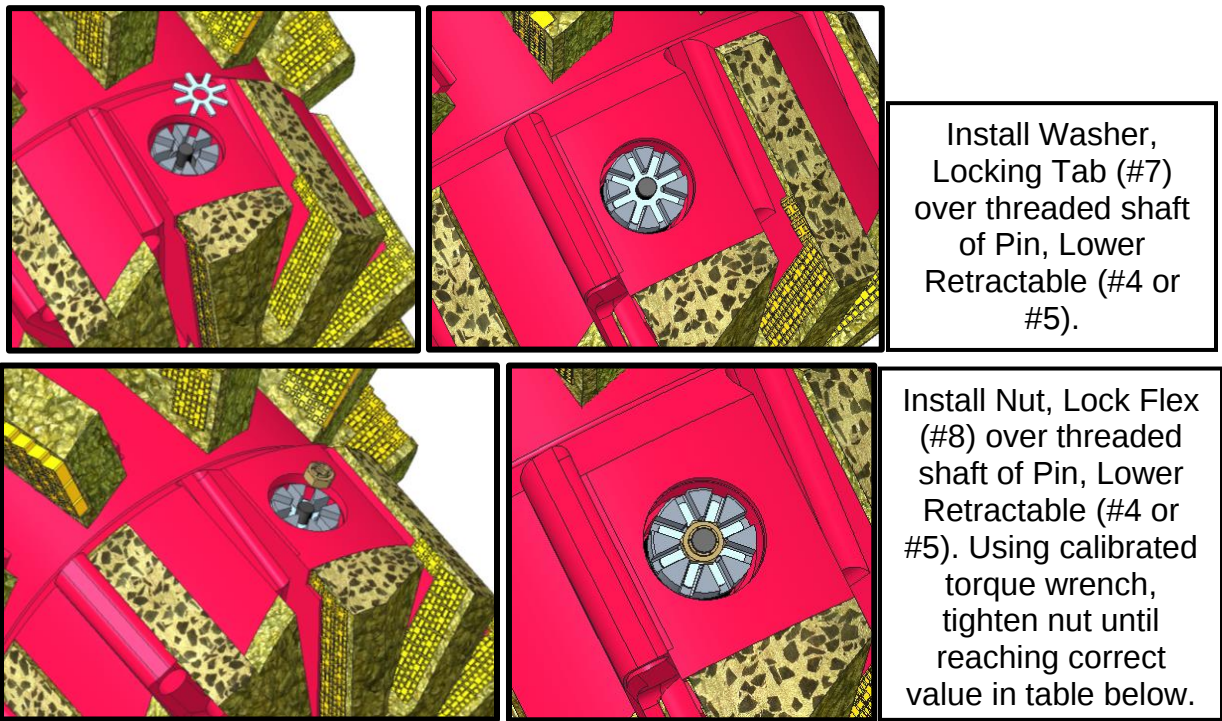
Pin Tool Installation Torque Values	
9-5/8" (ft.*lbs.)	13-3/8" (ft.*lbs.)
80	180

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- 6) Apply Medium Strength Threadlocker (Loctite 243 or equivalent) to the smaller threaded shaft of the Pin, Lower Retractable (#4 or #5). See Images below.



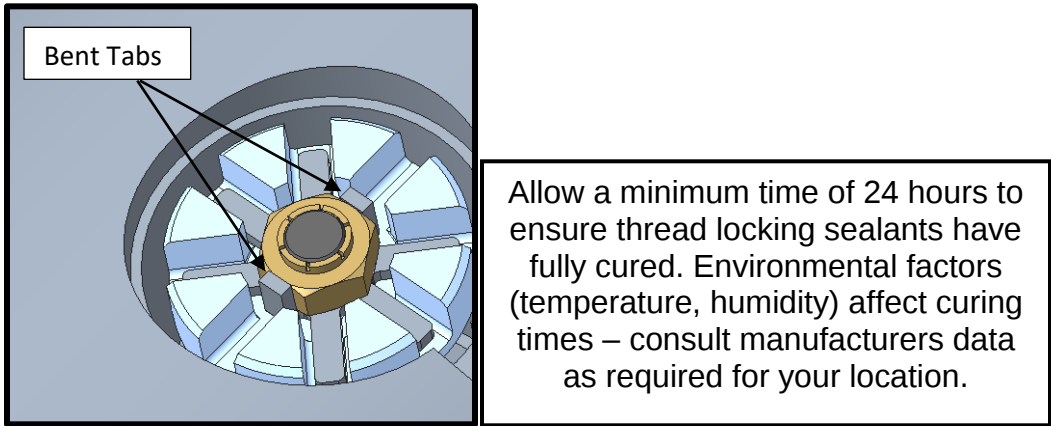
- 7) Install Washer, Locking Tab (#7) and install the Nut, Lock Flex (#8) . Ensure that the nut (#8) is tight. See Image below.



FlexLoc Nut Torque Values	
9-5/8" (in*lbs.)	13-3/8" (in*lbs.)
70	160

	7 of 8	AlphaV Hydraulic Mill Release (HMR) Assembly/Disassembly				
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- 8) Utilizing an appropriately sized screw driver, bend the two opposing tabs of the Washer, Locking Tab (#7) upward. Utilizing a punch and hammer, peen the tabs flat against the face of the Nut, Lock Flex (#8). Trim the tabs of the Washer, Locking Tab (#7) flush with the top of the Nut, Lock Flex (#8).



NOTE: It is imperative once the components are thread locked they receive the required cure time. Anything less may impede performance.

Disassembly Instructions

- 1) Utilize Assembly Instructions in reverse order for disassembly purposes.
- 2) Clean and inspect all components for indications of wear/damage.
- 3) Repair or replace damaged components as required.

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Document Change Record

Rev	Date	Page(s)	By	Part Affected	Change Description
A	04/2024		R. Barker		Release

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